

**Cotton Valley Updip Oil and Gas**  
**50490203**  
**Volumes of Discovered Petroleum**

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. Oil accumulations containing less than 0.5 MMBO or gas accumulations containing less than 3 BCFG were not considered in the assessment. Accumulations were classified as oil or gas by the USGS. Accumulations without reported discovery dates were not included. NA means not applicable and is shown for volumes where an insufficient number of accumulations are present. Calculated values may not be equal to the sums of the component values because numbers have been independently rounded.]

| Accumulation Type  | Known (Discovered) Volumes |            |            |              | Grown (Discovered) Volumes |            |            |              |
|--------------------|----------------------------|------------|------------|--------------|----------------------------|------------|------------|--------------|
|                    | Number of Accums.          | Oil (MMBO) | Gas (BCFG) | NGL (MMBNGL) | Number of Accums.          | Oil (MMBO) | Gas (BCFG) | NGL (MMBNGL) |
| Oil Accums.        | 26                         | 130        | 213        | 13           | 28                         | 167        | 260        | 17           |
| Gas Accums.        | 2                          | 0          | 10         | 1            | 4                          | 0          | 26         | 3            |
| Accums. <0.5 MMBOE | 7                          | 1          | 9          | 1            | 3                          | 1          | 4          | 0            |
| All Accums.        | 35                         | 131        | 231        | 15           | 35                         | 167        | 289        | 19           |

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**Discovery-History Sequence**

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| Accumulation Type | Discovery-History Sequence - Known (Discovered) Volumes |                         |                            |                 |              |                |
|-------------------|---|-------------------------|----------------------------|-----------------|--------------|----------------|
|                   |   | Year<br>(End of Period) | Number of<br>Accumulations | Total<br>Volume | Mean<br>Size | Median<br>Size |
| Oil Accums.       | <u>Known Sizes (MMBO)</u>                               |                         |                            |                 |              |                |
|                   | First third   | 1959                    | 9                          | 69              | 8            | 2              |
|                   | Second third  | 1970                    | 9                          | 43              | 5            | 4              |
|                   | Third third   | 1995                    | 8                          | 18              | 2            | 1              |
|                   | All Oil Accums.   |                         | 26                         | 130             | 5            | 2              |
| Gas Accums.       | <u>Known Sizes (BCFG)</u>                               |                         |                            |                 |              |                |
|                   | First half  | 1980                    | 1                          | NA              | NA           | NA             |
|                   | Second half   | 1984                    | 1                          | NA              | NA           | NA             |
|                   | All Gas Accums.   |                         | 2                          | 10              | 5            | 5              |

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| Accumulation Type | Discovery-History Sequence - Grown (Discovered) Volumes |                         |                            |                 |              |                |
|-------------------|---|-------------------------|----------------------------|-----------------|--------------|----------------|
|                   |   | Year<br>(End of Period) | Number of<br>Accumulations | Total<br>Volume | Mean<br>Size | Median<br>Size |
| Oil Accums.       | <u>Grown Sizes (MMBO)</u>                               |                         |                            |                 |              |                |
|                   | First third   | 1959                    | 9                          | 82              | 9            | 3              |
|                   | Second third  | 1974                    | 10                         | 56              | 6            | 3              |
|                   | Third third   | 1995                    | 9                          | 29              | 3            | 2              |
|                   | All Oil Accums.   |                         | 28                         | 167             | 6            | 3              |
| Gas Accums.       | <u>Grown Sizes (BCFG)</u>                               |                         |                            |                 |              |                |
|                   | First half  | 1980                    | 2                          | 8               | 4            | 4              |
|                   | Second half   | 1997                    | 2                          | 17              | 9            | 9              |
|                   | All Gas Accums.   |                         | 4                          | 26              | 6            | 6              |